Audit a Broken Financial Model

Excel & Financial Modeling | Advanced | 90 minutes (estimate) | XFM-02 or equivalent

Learning outcomes

Find planted errors, correct the model and challenge an AI explanation. Calculate the result, reconcile it and communicate its limitations.

Method

Audit business logic as well as spreadsheet error messages. A formula can calculate a plausible number while linking to the wrong driver. Trace outputs to source assumptions, compare independent checks and perturb one input at a time. Treat AI-generated explanations as claims that require evidence.

Smaller worked example

If revenue = units × price, a formula units × unit cost may return a valid number with no Excel error. A price change should move revenue; if it does not, the dependency is wrong.

Business context and rules

Fictional Spruce Models. Use the same one-year source assumptions as XFM-02. The student workbook includes a visible Broken model tab with five deliberately planted formula errors. The clean Analysis area is your repair workspace. Simulated AI comment: “The balance sheet balances, so the model is reliable; higher receivables increase cash, and a fixed profit cell improves stability.” This comment is deliberately unreliable and is not a statement from a real system or reviewer. Identify all errors, including any that mask other errors. Do not treat the intentionally broken tab as a clean output.

Deliberate defects

The student workbook includes a Broken model tab with intentional logic errors. They are part of the assignment. The solution keeps that tab labeled for comparison and supplies corrected formulas in Analysis.

Original synthetic inputs

Input	Value	Unit
Opening cash	100	USD
Opening AR	80	USD
Opening inventory	60	USD
Opening net PPE	200	USD
Opening AP	50	USD
Opening debt	150	USD
Opening equity	240	USD
Forecast revenue	500	USD
COGS / revenue	0.6	fraction
Cash operating expenses	100	USD
Depreciation	20	USD
Cash interest	10	USD
Tax rate	0.25	fraction
Closing AR assumption	100	USD
Closing inventory assumption	70	USD
Closing AP assumption	60	USD
Cash capex	40	USD
Debt repayment	20	USD

Required deliverables

Submit an issue log with cell, incorrect formula, consequence, corrected formula and test; a repaired formula-based model; and a 150-word critique of the simulated AI comment. Retain the Broken model tab for audit evidence. Identify all five planted errors, not just the final balance difference.

Use formulas for derived amounts and preserve source data. Put narrative deliverables in the workbook response area; expand it as needed. Compare amounts within 0.01 of the stated unit and percentages within 0.1 percentage point. No unsupported balancing plugs.